Amendments to the Claims

Please amend claims 1, 3, 11-17, and 36, cancel claims 18-35 and 37-56 without prejudice, and add new claim 59, as below. Claims 10 and 22-23 were previously cancelled, and claims 57 and 58 were not entered. Therefore, the currently pending claims are 1-9, 11-17, and 59.

1. (currently amended) A method of altering gene expression in a population of human embryonic stem cells; comprising:

introducing ~~a transfection preparation comprising~~ a polynucleotide into the population of human embryonic stem cells, wherein ~~the~~ said polynucleotide is

(i) operably linked to a promoter and contains a gene expression altering sequence so that gene expression in the embryonic stem cells prior to introducing the polynucleotide is measurably different from gene expression after introducing the polynucleotide while retaining the pluripotent character of the cells~~; and (b) the transfection preparation further comprises~~, and

(ii) introduced into said cell population by transfection in the presence of at least one ~~or more~~ transfection ~~reagents~~ reagent selected from the group consisting of a cationic non-lipid polymer reagent, a non-liposomal reagent, and a cationic lipid agent.

2. (previously presented) The method according to claim 1, wherein the expression altering sequence is an enhancer sequence for modulating gene expression in the population of embryonic stem cells.

3. (currently amended) The method according to claim 1, wherein the expression altering sequence is a gene encoding a protein[[,]] and said ~~the~~ protein is not expressed in the population of embryonic stem cells ~~absent~~ in the absence of the polynucleotide.

4. (previously presented) The method according to claim 3, wherein the protein is selected from a fluorescent protein and an antibiotic resistance protein.

5. (previously presented) The method according to claim 4, wherein the fluorescent protein is selected from green fluorescent protein, lacZ, firefly Rennila protein, luciferase, red cyan protein and yellow cyan protein.

6. (previously presented) The method according to claim 4, wherein the antibiotic resistance protein is selected from hygromycin, neomycin, zeocin and puromycin.

7. (previously presented) The method according to claim 1, wherein the polynucleotide is formulated with a cationic non-lipid polymer transfection reagent for introducing the polynucleotide into the population of cells.

8. (previously presented) The method according to claim 1, wherein the polynucleotide is formulated with a non-liposomal transfection reagent for introducing the polynucleotide into the population of cells.

9. (previously presented) The method according to claim 1, wherein the polynucleotide is formulated with a cationic lipid reagent for introducing the polynucleotide into the population of cells.

10. (cancelled)

11. (currently amended) A method of altering gene expression in a population of human embryonic stem cells; comprising:
introducing ~~into the population of cells a transfection preparation comprising~~ a DNA sequence into the population of human embryonic stem cells, wherein said DNA is

(i) operably linked to a promoter and corresponding to at least one of an enhancer and a gene so as to alter gene expression in the population of embryonic cells in an amount to permit cells containing the DNA sequence to be distinguished from cells absent the DNA sequence,

~~wherein the transfection preparation further comprises~~ and

(ii) introduced into said cell population by transfection in the presence of a ~~one or more transfection reagents selected from the group consisting of~~ cationic polymer ~~agents~~ agent.

12. (currently amended) ~~A~~ The method according to claim 11, wherein the DNA sequence corresponds to a gene and the gene encodes a protein selected from a fluorescent protein, a suicide gene, and an antibiotic resistance protein.

13. (currently amended) ~~A~~ The method according to claim 11, wherein the promoter is selected from rex-1, oct-4, oct-6, SSEA-3, SSEA-4, TRA1-60, TR1-81, GCTM-2, alkaline phosphatase, and Hes1 promoters.

14. (currently amended) ~~A~~ The method according to claim 12, wherein the fluorescent protein is selected from green fluorescent protein, lacZ, firefly Rennila protein, luciferase, red cyan protein and yellow cyan protein.

15. (currently amended) ~~A~~ The method according to claim 12, wherein the protein is an antibiotic resistance protein and the antibiotic resistance protein is selected from hygromycin, neomycin, zeocin and puromycin.

16. (currently amended) ~~A~~ The method according to claim 12, wherein the DNA corresponds to a suicide gene and the suicide gene is an inducible apoptic gene or encodes a protein selected from herpes simplex thymidine kinase, inducible Diptheria toxin, bacterial cytosine deaminase.

17. (currently amended) ~~A~~ The method according to claim 11, wherein the DNA

sequence causes a knockout of a genomic sequence, the genomic sequence selected from beta 2 microglobulin, HLA-1, HLA-2 or an INF receptor gene sequence.

Claims 18-35. (cancelled)

36. (currently amended) A substantially pure stably transfected ~~cell~~ population of pluripotent human embryonic stem cells, wherein said cells are modified to contain a ~~having altered gene expression produced in accordance with claim 1 comprising a substantially pure population of human embryonic stem cells containing an~~ gene expression altering sequence of ~~exogenous~~ DNA.

Claims 37-56. (cancelled)

Claims 57-58. (not entered)

59. (new) The method according to claim 1, further comprising selecting and verifying that the population is a substantially pure population of stably transfected pluripotent hES cell with the gene expression altering sequence.